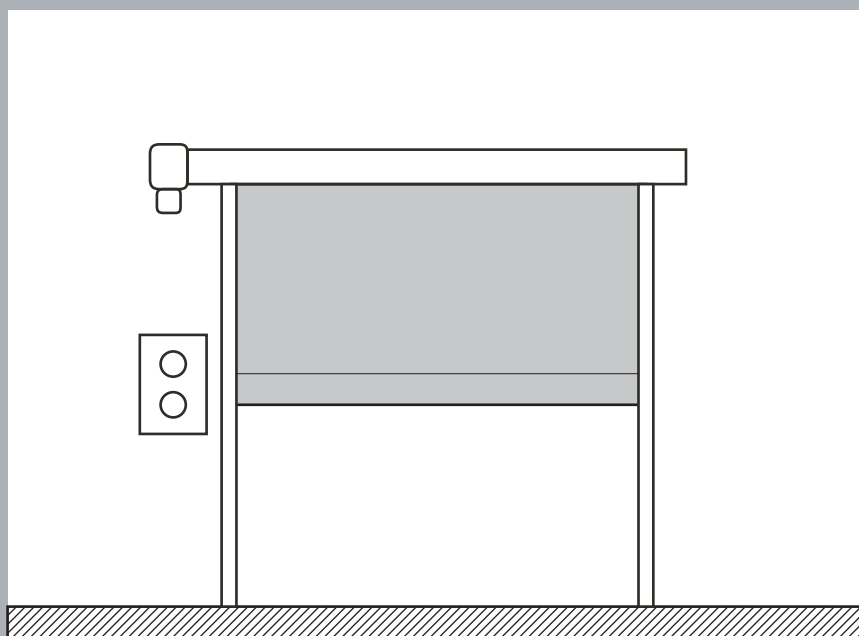


Fast Door BELOXI

Installation Manual



Please read carefully before
any assembly or installation

A) Warning to installer and user

- 1) **WARNING:** It's very important to your safety that this instructions are followed. The bad installation or wrong appliance can damage people or materials.
- 2) Keep these instructions in a safe place for future reference.
- 3) This product was designed and produced strictly for the use indicated in this manual. Any other use then expressly mentioned may damage the product and / or be a hazard to people, and void the warranty.
- 4) **ELECTROCELOS S.A.** is not responsible for the incorrect use of the product or by using other than that for which it was designed.
- 5) Do not install the product in an area where there is danger of explosion: gases or flammable fumes are a serious security threat.
- 6) **ELECTROCELOS S.A.** is not responsible if the safety standards weren't taken into account in the manufacture of the element to be automated, or any deformation that may occur at the same.
- 7) Before the installation, turn off the power.
- 8) The devices (ex: photocells) should be used for prevent injury in people or materials.
- 9) **ELECTROCELOS S.A.** is not responsible for safety and proper operation of the product when isn't used components sold by itself.
- 10) Do not make any changes to the components of the engine and their accessories.
- 11) The installer should inform the customer of how to operate the product in an emergency case and provide the manual of it.
- 12) Do not let the children closer to the door of the moving parts automatically when they are in motion.
- 13) Keep controls out of reach of children, to prevent any accident.
- 14) You shouldn't in any circumstances, attempt to repair or tune the automatic and must call an end to this Technical qualified.
- 15) The automation should be installed to be protected from elements. Exposure to water, rain, humidity or excessive dust may void the warranty of the product.
- 16) Connect the automatic taking of a protected 230 V with ground wire.
- 17) Automation for use inside.

B) Technical Specifications

1. Motor Specifications:

Model:	230V
Supply Voltage:	220V 50Hz
Electrical power:	750W
Insulation grade:	B
Hot protection:	130°C
Operation temperature:	-20°C a 40°C
Rotational speed:	1440RPM
Outup torque:	15Nm
Frequency power:	750W
Diameter:	25mm
Biggest height of lift:	7m

2. Central Specifications:

Work power source:	AC 230V 50Hz
Power input:	1500W
Movement frequency:	20Hz - 120Hz
Ambient Temperature:	-10°C a 55°C
Relative humidity:	<70%

3. Sheet Specifications:

The fabric weight is 5000 x 5000 mm with a thickness of 0.8 mm.

The resistance is 3500 N/ 5cm following the BS 3424 norm.

The tear resistance is 600 N.

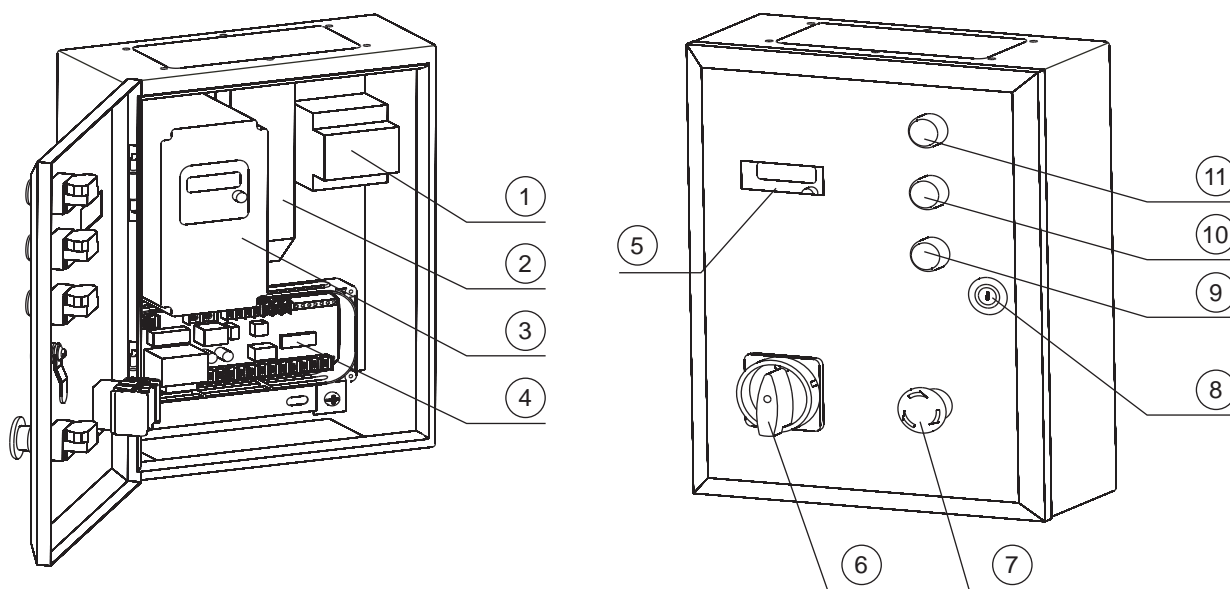
The working temperature is -30 °C +70°C.

The light resistance is 7 (except white sheet), following the BS 3424 norm.

The form to achive the termic isolantion is K.A/L=67 Wm2 K

C) Central Schematic

4. Central Schematic:



1 Air switch

2 Brake Resistance

3 Frequency changers

4 Control circuit

5 Display

6 Central switch

7 Emergency stop switch

8 Control box lock

9 Close button

10 Pause button

11 Opne button

Figure 1 - Control box scheme

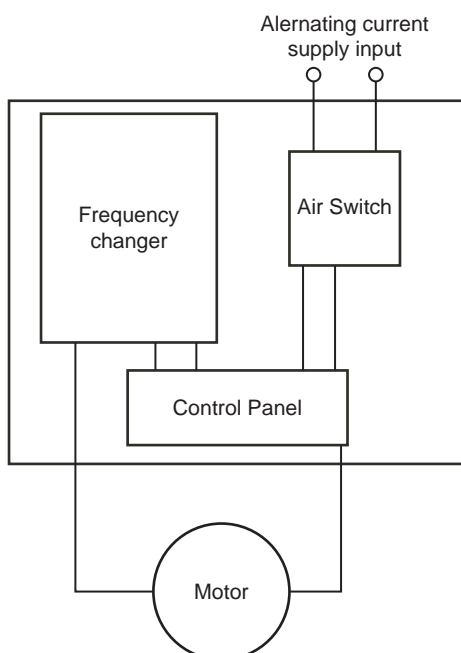
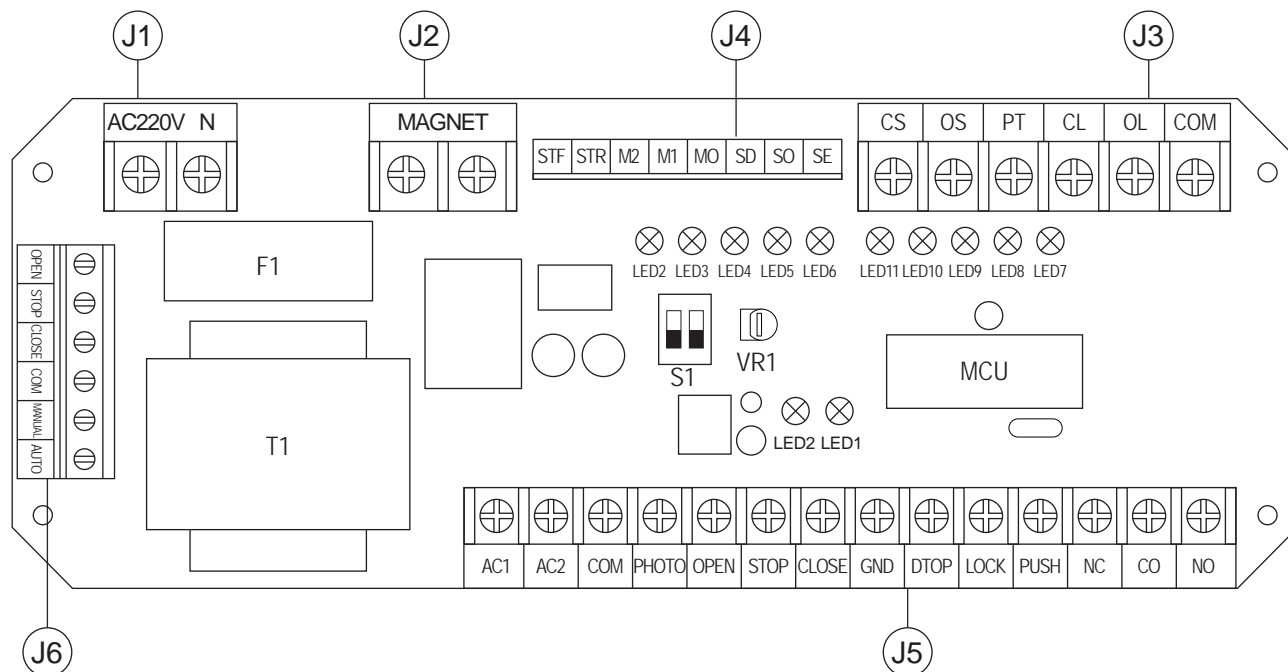


Figure 2 - Control box wiring diagram

C) Central Schematic



- | | |
|--|---|
| J1 - AC 220V Input | J6 - Open/Close/Stop/Buttons |
| J2 - Electromagnetic brake output socket | S1 - DIP switch selector |
| J3 - Spacing input post | F1 - 2A fuse box |
| J4 - Frequency changer output terminal | T1 - Transformer |
| J5 - External connection control signal | Vr1 - Automatic closing time adjustment potentiometer |

Figure 3 - Control circuit schematic drawing

5. Setting inverter parameters:

	Parameter n°:	Name	Value
1	P.003	Base frequency	50 Hz
2	P.004	Opening speed	50 Hz
3	P.024	Closing speed	50 Hz

C) Central Schematic

6. LED indicating lamp function explanation:

N°	Nome	Function
1	LED 7	Opening door
2	LED 8	Closing door
3	LED 9	Electrical machinery protection
4	LED 10	Opening door with deceleration
5	LED 11	Closing door with deceleration

7. Control panel establishment:

(1) DIP switch establishment

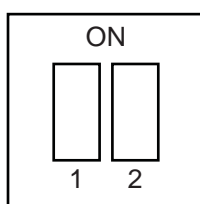


Figure 4

DIP 1:

ON: Closes automatically when we adjust the pause time in Vr1.

Causes the delay time to meet the requirement, the time regulation band is 1-30 seconds (Fig. 5).

OFF: Closes automatically invalid, closes not automatically the function (Fig. 6).

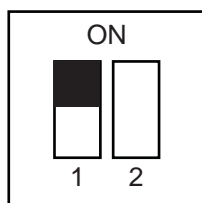


Figure 5

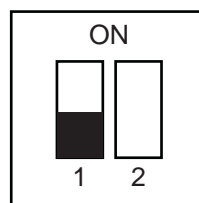


Figure 6

C) Central Schematic

DIP 2:

PHOTO ON (infrared protection): Infrared connected in a contact NO (normally open) - Fig. 7.

PHOTO OFF (infrared protection): Infrared connected in a contact NC (normally closed) - Fig. 8.

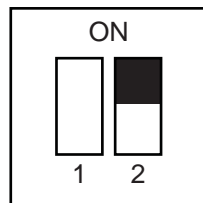


Figure 7

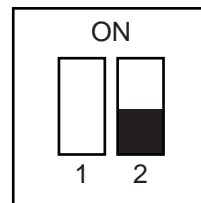
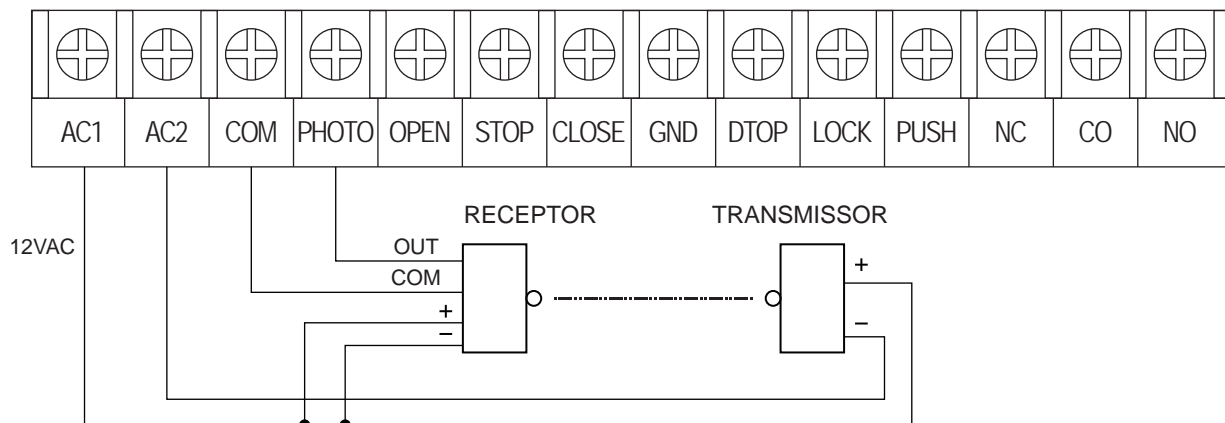


Figure 8

Note: Must use always infrared protection.

8. Connections:

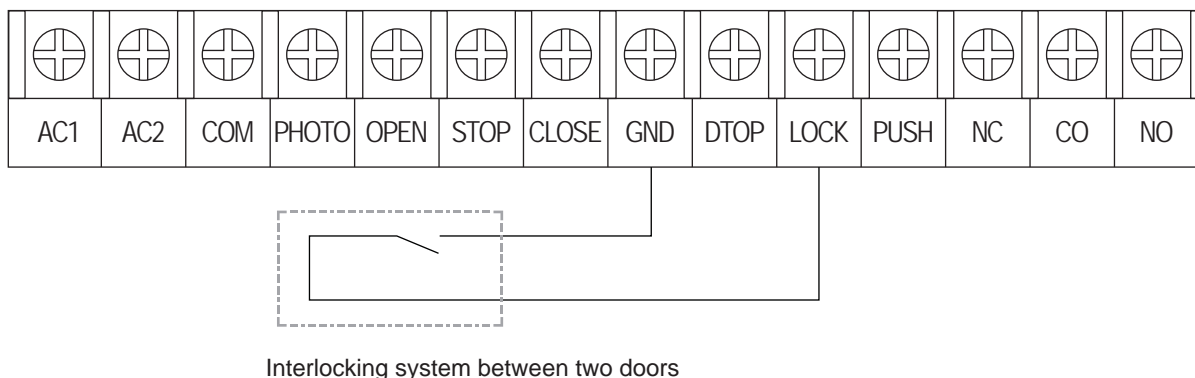
8.1 Infrared protector:



Note: If in the gate body downward movement process this signal is effective time, the gate body stops and returns to the upward movement immediately.

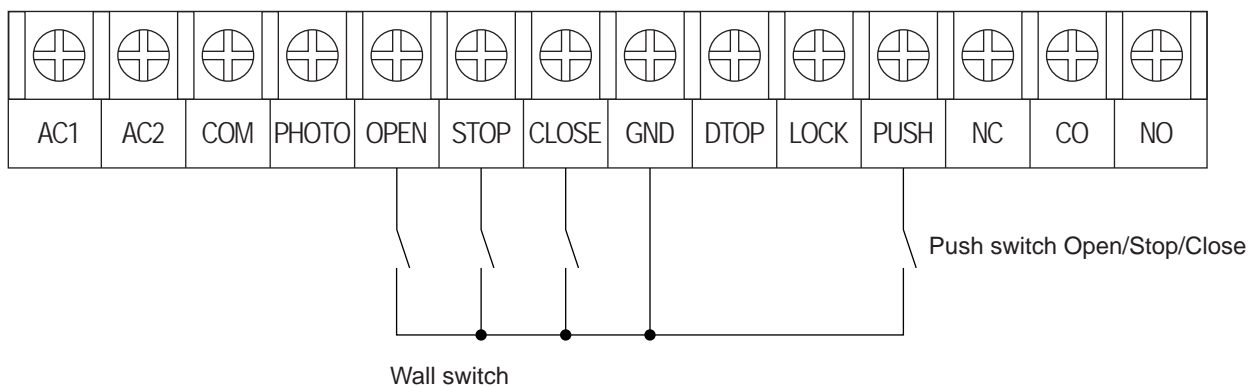
C) Central Schematic

8.2 Interlocking system:

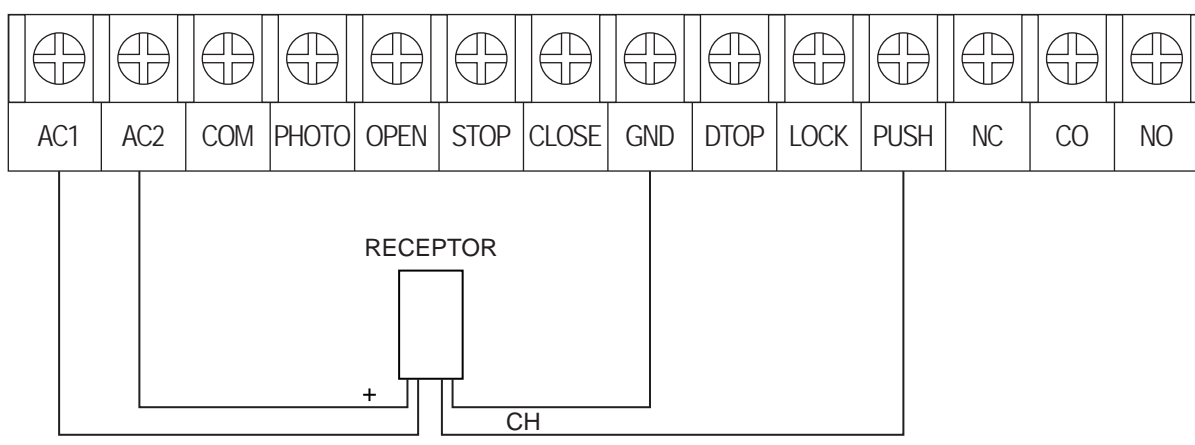


Will need chain-like another hanger-on spacing condition switch turning on, may realize the double gate chain-like Function, when another gate body is at opens the door the condition, will lock in this, is unable to open.

8.3 Wiring for external control:

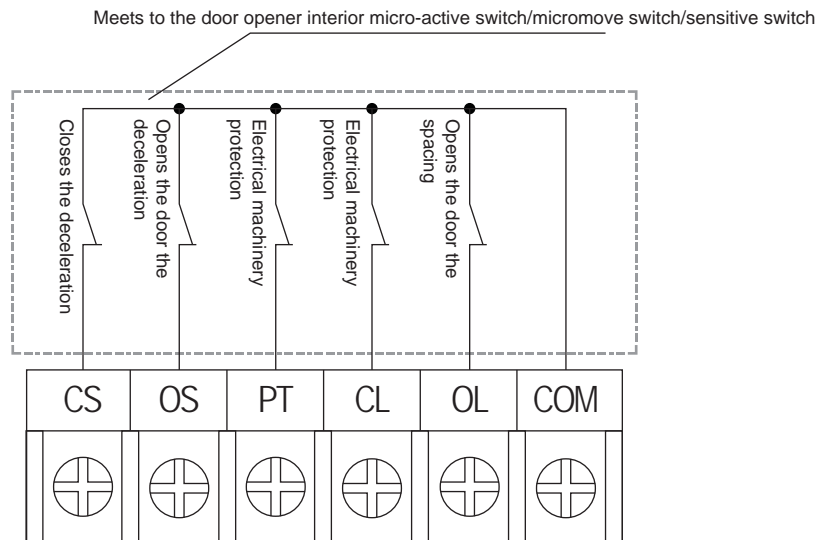


8.4 Wiring for external receiver:



C) Central Schematic

8.5 Wiring diagram of limit switches:



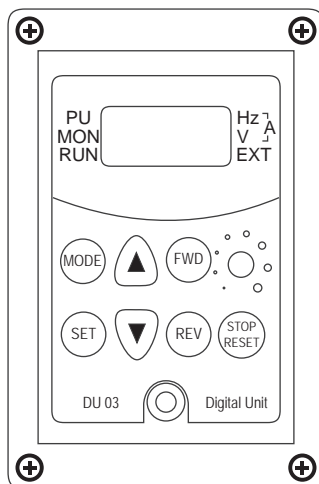
Wiring diagram of limit switches (J3)

If the acceleration or deceleration wasn't correct please change the motor connections.

9. Common breakdown phenomenon and solution:

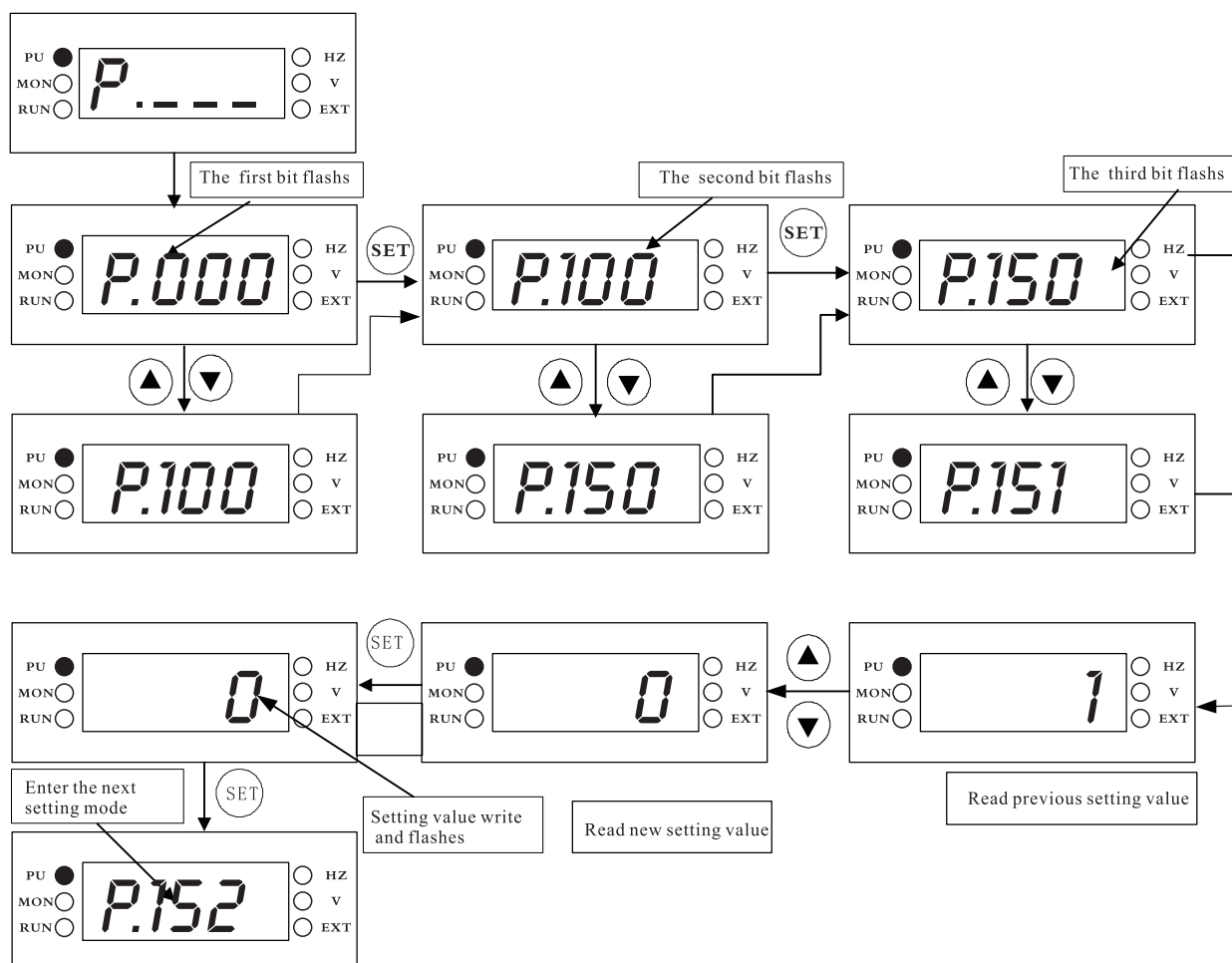
Breakdown phenomenon	Reason	Solution
Electrical machinery two directions cannot rotate	<ul style="list-style-type: none"> - Frequency changer or control panel radio - Electrical machinery hot protection switch movement 	<ul style="list-style-type: none"> - The replacement insurance, inspects the power source. Connect the line - After waiting the temperature reduces, the electrical machinery to move again
The electrical machinery opens the door normally, closes cannot move	<ul style="list-style-type: none"> - Problem in the infrared 	<ul style="list-style-type: none"> - According to above explanation correct connection
The electrical machinery changes opposite	<ul style="list-style-type: none"> - According to the scene request, Electrical machinery revolution direction needs adjustment 	<ul style="list-style-type: none"> - Electrical machinery output terminal the U-V-W random two lines exchange, and pays attention decelerates, limits the position switch's direction is whether normal
The electrical machinery revolves stops, the frequency changer display monitor demonstrates wrong harms code OC, OU, OH, OL, OI1, OCR.	<ul style="list-style-type: none"> - The load is overweight, surpasses the frequency changer peak power output - Brakes the resistance not to connect 	<ul style="list-style-type: none"> - Choice power big frequency changer - Brakes the resistance connection to be correct
The electrical machinery has not decelerated the stop	<ul style="list-style-type: none"> - On electrical machinery's deceleration switch is away from improper with the limit switch. 	<ul style="list-style-type: none"> - According to requests to readjust deceleration, limit switch

10. Inverter parameter setting:



Whenever you want to save the chosen value press button "SET" for more than 0.5 seconds.

(See page 5 - Setting inverter parameters)



D) Variator frequency manual

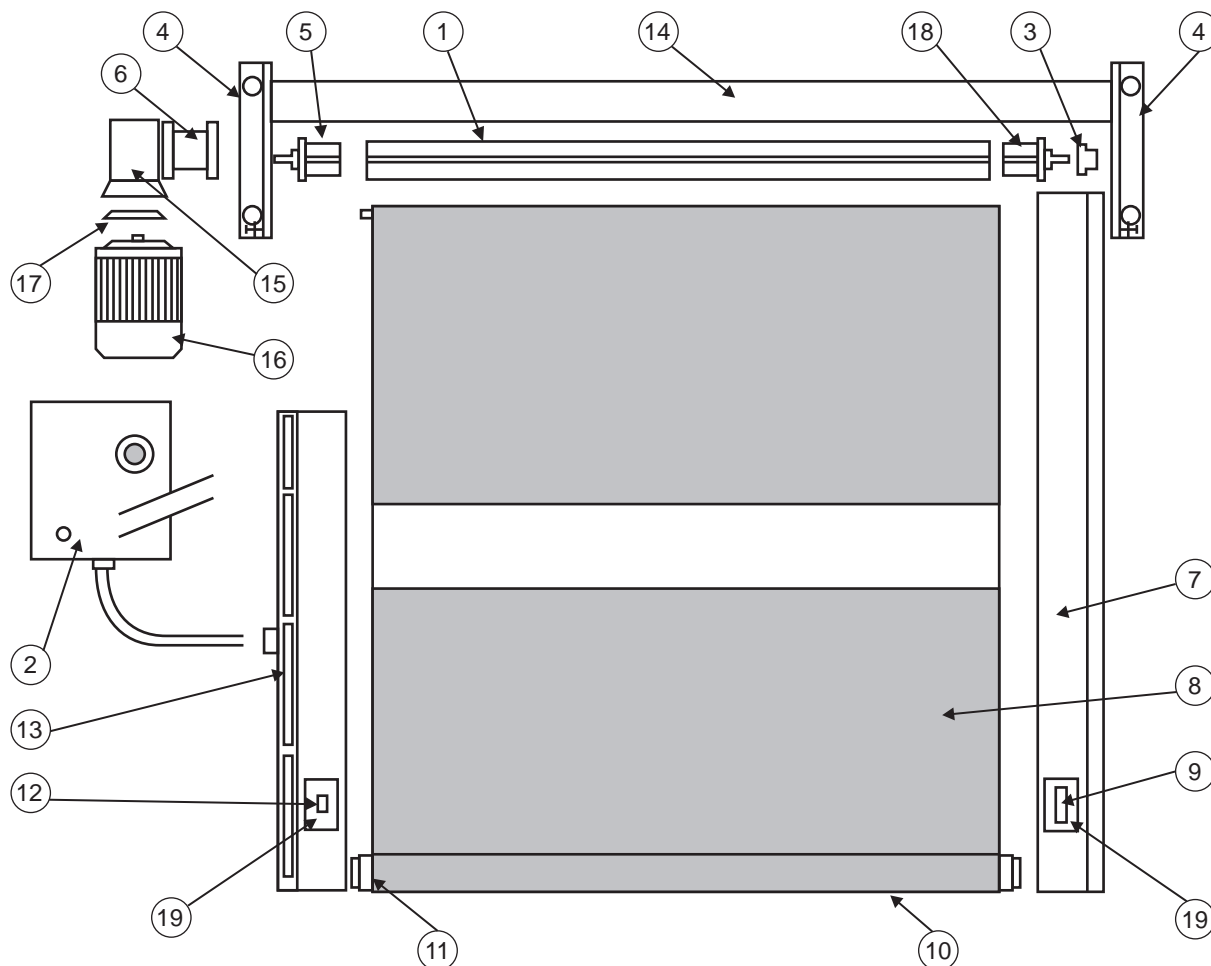
11. Errors (Inverter):

Code	Cause	Solution
Err	<ol style="list-style-type: none"> 1. Under-voltage for power supply 2. RES terminal is connector 3. Bad connection between the manipulator and the main machine 4. Internal circuit malfunction 5. Wrong operation of CPU 	<ol style="list-style-type: none"> 1. Provide a normal power supply 2. Shut off RES 3. Ensure firm connection between the manipulator and the main machine 4. Replace the inverter 5. Restart the inverter
OC 1 Over-current during acceleration	The output current is two times larger than the rated current of the inverter	<ol style="list-style-type: none"> 1. In case the time for acceleration or deceleration is too short, prolong it 2. Avoid abrupt increase of load 3. Check terminals U, V and W for short circuit
OC 2 Over-current at constant speed		
OC 3 Over-current during deceleration		
OV 1 Over-voltage during acceleration	Over-voltage between Terminal P and Terminal N	<ol style="list-style-type: none"> 1. In case the time for acceleration or deceleration is too short, prolong it 2. Check the brake resistor between terminal I and PR for loose connection 3. Check whether the values of Pr30 and Pr70 are right or not
OV 2 Over-voltage at constant speed		
OV 3 Over-voltage during deceleration		
ΓHF The IGBT module is overheating	The IGBT module thermal accumulating relay acts	Avoid the inverter long time operating under overload condition
ΓHN Motor overheating	The electronic thermal relay operates	<ol style="list-style-type: none"> 1. Check whether the setting value of the Pr9 is correct or not (the setting should comply the actual motor) 2. Reduce the load
BE The brake transistor is abnormal	The brake transistor is abnormal	Please send it back to the factory

D) Variator frequency manual

Code	Cause	Solution
OLI OLI - Current stall	When the output current is larger than the set value, it will display OLI to indicate that the inverter is in current stall mode. In this case the motor may not run smoothly.	1. Check if the values of Pr22, Pr23, Pr66 are proper 2. Check if the values of Pr7 and Pr8 are too small
OLV OLV - Voltage stall	When the voltage between P and N is too high, the inverter will display OLV . The motor may not run smoothly.	1. Add a brake resistor between P and Pr 2. Check with the specified voltage
LV LV - Low voltage	Input voltage is low	1. Supply with the specified voltage
OLT OLT - LT motion	When the output current is more than twice the rated current, but it doesn't reach the stall level, the inverter will display OLT . The motor may not run smoothly.	1. Please increase the acceleration/deceleration time in case of abrupt acceleration/deceleration 2. Avoid abrupt load increasing 3. Check whether there is short circuit among U, v and W
OTR The external thermal relay operates	The external thermal relay operates	1. Check the capacity of the external thermal relay and the motor for matching 2. Reduce the load
OPF Peripheral devices are abnormal	1. Abnormal communication. The maximum communication retry number is violated. 2. Interrupted communication. The maximum communication check time is violated.	Correctly set the communication parameters
EEP Memory is abnormal	The memory ROM fails.	Send it back to the factory
CPU CPU error	External electromagnetic disturbance is too strong	Improve external disturbance
OLS Stall prevention protection	The load of the motor is too heavy	1. Reduce the load of the motor 2. Increase the value of Pr22
INF IGBT module is too hot	The temperature of IGBT module is too high	1. Reduce the environment temperature and improve air condition 2. Check whether the fan of the inverter is damaged

E) Esquema da Porta Rápida



- 1 - Drum
- 2 - Electronic table
- 3 - Nylon
- 4 - Ear-muff Support
- 5 - Axle bushing
- 6 - Separator medium-reducer
- 7 - Aluminum Guide
- 8 - PVC tarpaulin
- 9 - Photocell mirror with stand
- 10 - Counterweight with security system

- 11 - Scooter slider
- 12 - Photocell with support
- 13 - NOT applied
- 14 - Axis covers
- 15 - Reducer
- 16 - Motor
- 17 - Limit switch box
- 18 - Axle short
- 19 - Photocell support

F) Montagem da Porta Rápida

1-The door is placed vertically



2-After setting the medium, it can be level the sheet through the screw that you see in the image



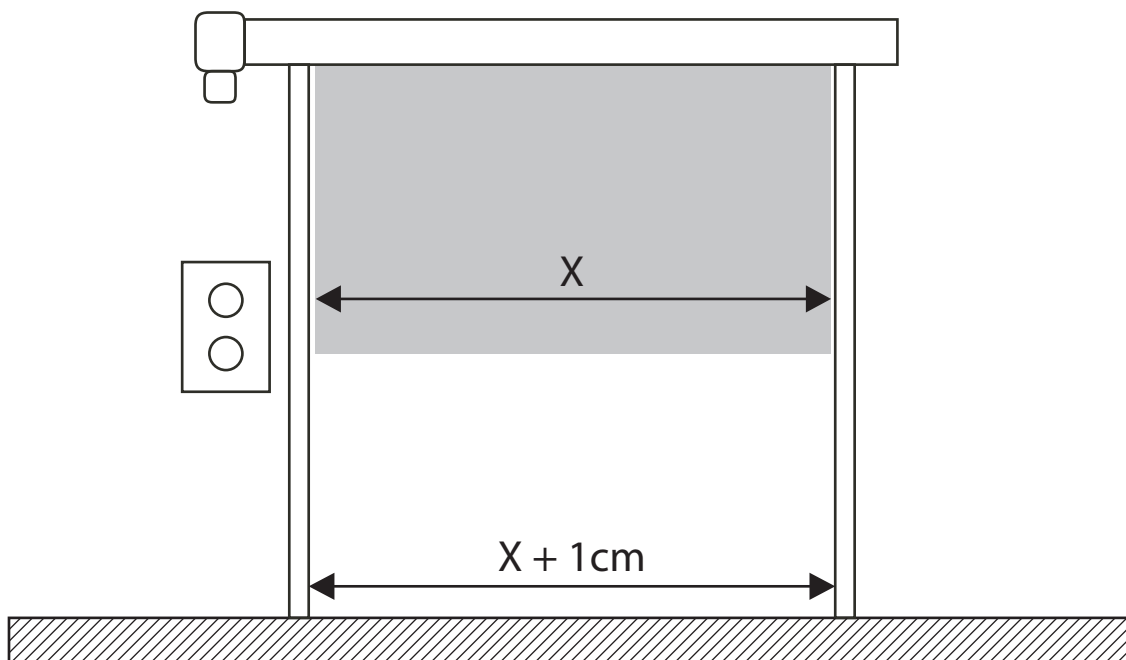
3- Place fixing screws to the floor in the support



4- Use the handle to unlock the door



F) Montagem da Porta Rápida

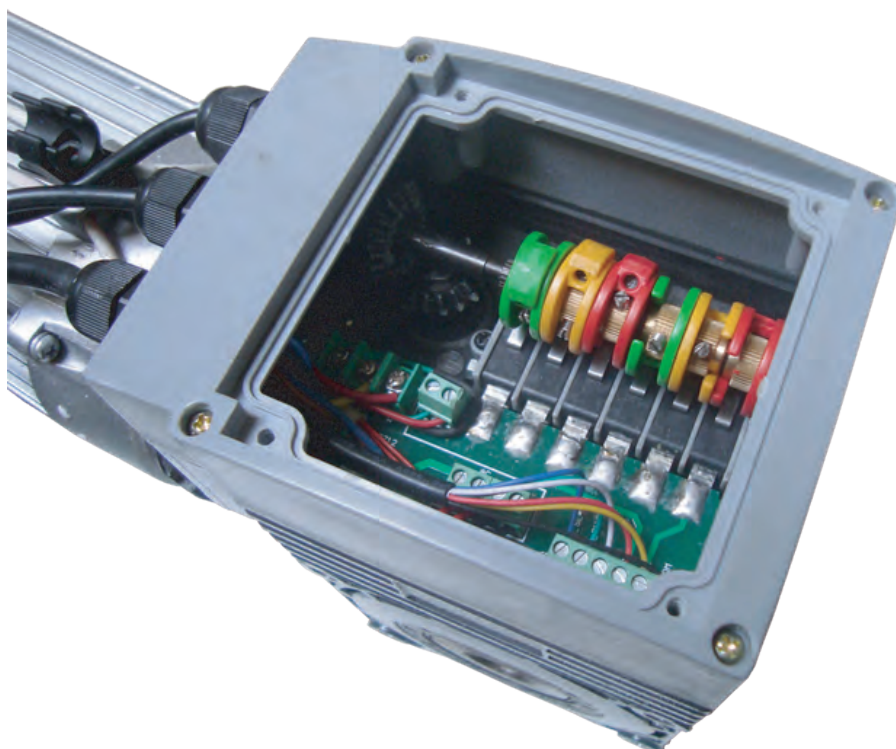


- You should be careful to place 1 cm off the bottom of the door, as a safety measure.
- Must be sure that the sheet enter 5 cm in each side the tab.



- Don't forget to link the earth wire to the screw.

F) Montagem da Porta Rápida



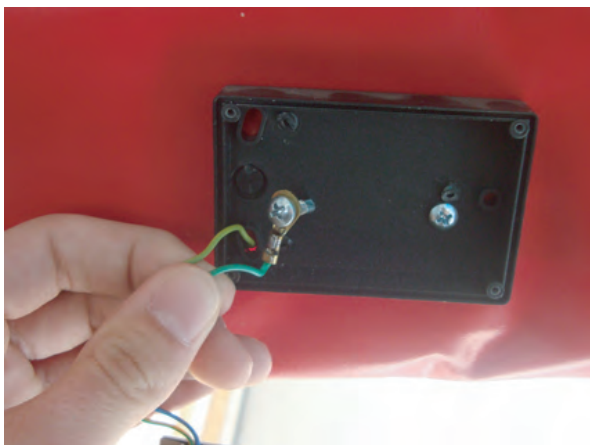
- Don't forget to set the end-stop when you finish the assembly.
- Before put the door working, please put the sheet in the mid-term. To don't force too much the sheet in the first use.
- Put the function selector in JOG position and start to rise the door and fall the same, until you reach the limit. When you achieve that point, please screw the selector.

G) Sistema Anti-Choque

Warning (anti-shock system): System created to save people from the collision between them and the door when the door is on motion.



1- After the assembly, please note if the safety system is like in the foto.



2- After the assembly put the screw in the linker and tighten him.



3- After assembly, the safety system must be as in Figure.

NOTE: The user must verify the battery at least one time a year.